

ABSTRACT

A piezoelectric ceramics having ceramic particles,
5 wherein said ceramic particles comprises bismuth layer
compound containing at least Sr, Ln (note that Ln is a
lanthanoid element), Bi, Ti and O and including
 $M^{II}Bi_4Ti_4O_{15}$ type crystal (M^{II} is an element composed of Sr
and Ln) as a main component, and an oxide of Mn as a
10 subcomponent; and an average particle diameter by the
code length measuring method is 0.8 to 4.7 μm : by which
it is possible to provide piezoelectric ceramics having a
large Q_{max} in a third harmonic mode of thickness vertical
vibration in a relatively high frequency band (for
15 example, 16 to 65 MHz), a resonator an other
piezoelectric element comprising the piezoelectric
ceramics as a piezoelectric substance thereof.